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Pavel Berkhin, Jonathan D. Beche, Dee Jay Randall

August 2001

Proceedings of the seventh ACM SIGKDD international conference on Knowledge discovery and data mining

Publisher: ACM Press

Full text available: pdf(519.79 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The goal of **Path Analysis** is to understand visitors' navigation of a Web site. The fundamental analysis component is a path. A path is a finite sequence of elements, typically representing URLs or groups of URLs. A full path is an abstraction of a visit or a session, which can contain attributes described below. Subpaths represent interesting subsequences of the full paths. Path Analysis provides user-configurable extraction, filtering, preprocessing, noise reduction, descriptive st ...

2 [Traffic characterization: Characteristics of internet background radiation](#)

Ruoming Pang, Vinod Yegneswaran, Paul Barford, Vern Paxson, Larry Peterson

October 2004

Proceedings of the 4th ACM SIGCOMM conference on Internet measurement

Publisher: ACM Press

Full text available: pdf(396.12 KB)

 Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Monitoring any portion of the Internet address space reveals incessant activity. This holds even when monitoring traffic sent to unused addresses, which we term "background radiation." Background radiation reflects fundamentally nonproductive traffic, either malicious (flooding backscatter, scans for vulnerabilities, worms) or benign (misconfigurations). While the general presence of background radiation is well known to the network operator community, its nature has yet to be broadly charac ...

Keywords: honeypot, internet background radiation, network telescope
3 [Security in a networked environment](#)

Cleopas O. Angaye

June 1995 **ACM SIGAPP Applied Computing Review**, Volume 3 Issue 1

Publisher: ACM Press

Full text available: pdf(338.01 KB)

 Additional Information: [full citation](#), [abstract](#), [index terms](#)

Networking allows multiple users to share data, information, software, and hardware. In addition, a network can centralize the management of a large base of connected processing units often configured to provide one location for coordinating security, backup and control. Security is the means to limit damage to data and to prevent user access to unauthorized information. The question of maintaining adequate security provisions

across heterogenous platforms presents new security challenges for th ...

Keywords: LAN, networking, security, server

4 Separable image warping with spatial lookup tables



G. Wolberg, T. E. Boult

July 1989 **ACM SIGGRAPH Computer Graphics , Proceedings of the 16th annual conference on Computer graphics and interactive techniques SIGGRAPH '89**, Volume 23 Issue 3

Publisher: ACM Press

Full text available: pdf(1.99 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)

Image warping refers to the 2-D resampling of a source image onto a target image. In the general case, this requires costly 2-D filtering operations. Simplifications are possible when the warp can be expressed as a cascade of orthogonal 1-D transformations. In these cases, separable transformations have been introduced to realize large performance gains. The central ideas in this area were formulated in the 2-pass algorithm by Catmull and Smith. Although that method applies over an important cla ...

5 Document detection: TIPSTER phase I final report

Bill Caid, Stephen Gallant, Joel Carleton, David Sudbeck

September 1993 **Proceedings of a workshop on held at Fredericksburg, Virginia: September 19-23, 1993**

Publisher: Association for Computational Linguistics

Full text available: pdf(1.84 MB)

Additional Information: [full citation](#), [abstract](#)

During Phase I of the TIPSTER program, HNC developed a unique approach to machine learning of similarity of meaning. This approach, embodied in a system called "MatchPlus", exploits this learned similarity of meaning for concept-based text retrieval, routing and visualization of textual information. MatchPlus uses an information representation scheme called "context vectors" to encode similarity of usage. Key attributes of the context vector approach are as follows: • Words, documents, and q ...

6 Filtering: Bayesian online classifiers for text classification and filtering



Kian Ming Adam Chai, Hai Leong Chieu, Hwee Tou Ng

August 2002 **Proceedings of the 25th annual international ACM SIGIR conference on Research and development in information retrieval**

Publisher: ACM Press

Full text available: pdf(236.06 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)

This paper explores the use of Bayesian online classifiers to classify text documents. Empirical results indicate that these classifiers are comparable with the best text classification systems. Furthermore, the online approach offers the advantage of continuous learning in the batch-adaptive text filtering task.

Keywords: bayesian, machine learning, online, text classification, text filtering

7 Optimizing computations in a transposed direct form realization of floating-point LTI-FIR systems

N. Sankarayya, K. Roy, D. Bhattacharya

November 1997 **Proceedings of the 1997 IEEE/ACM international conference on Computer-aided design**

Publisher: IEEE Computer Society

Full text available: pdf(188.36 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)



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The inherent computational redundancy in discrete-time LTI-FIR system response

computations in Digital Signal Processing have been exploited in a variety of ways to minimize the computational complexity. We present an improved algorithm-level computational optimization that uses sorted recursive differences between coefficients representing the system transfer function with a Floating-Point number representation to extract maximum benefits from this redundancy. It can be applied to any LTI-FIR s ...

Keywords: DSP, FIR, filters, low-power, Differential Coefficients, Sorted Recursive Differences, multiplication

8 Applications II: Towards automatic analysis of social interaction patterns in a nursing home environment from video



Datong Chen, Jie Yang, Howard D. Wactlar

October 2004 **Proceedings of the 6th ACM SIGMM international workshop on Multimedia information retrieval**

Publisher: ACM Press

Full text available: pdf(490.67 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper, we propose an ontology-based approach for analyzing social interaction patterns in a nursing home from video. Social interaction patterns are broken into individual activities and behavior events using a multi-level context hierarchy ontology framework. To take advantage of an ontology in representing how social interactions evolve, we design and refine the ontology based on knowledge gained from 80 hours of video recorded in the public spaces of a nursing home. The ontology is ...

Keywords: human activity, medical care, ontology, social interaction, stochastic modeling

9 Miscellaneous II: Mohonk: mobile honeypots to trace unwanted traffic early



Balachander Krishnamurthy

September 2004 **Proceedings of the ACM SIGCOMM workshop on Network troubleshooting: research, theory and operations practice meet malfunctioning reality**

Publisher: ACM Press

Full text available: pdf(133.12 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Honeypots have been traditionally used to advertise dark address space and gather information about originators of traffic to such addresses. With simple thresholding mechanisms this technique has shown itself to be fairly effective in identifying suspicious IP addresses. Honeypots are however unsuitable to locate the precise entry point of unwanted traffic. Tracing back to the origination of such traffic is hard due to the delay and difficulty of maintaining state along the path of such traffic ...

Keywords: network monitoring, unwanted packets

10 A pyramid-based approach to interactive terrain visualization



James Kaba, Joseph Peters

November 1993 **Proceedings of the 1993 symposium on Parallel rendering**

Publisher: ACM Press

Full text available: pdf(2.18 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: image rotation, mip maps, parallel rendering, pyramids, scan-line algorithms, terrain rendering

11

Design issues in a Rule-Based System



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1 [Media and signal processing: ASIP design and synthesis for non linear filtering in image processing](#)

L. Fanucci, M. Cassiano, S. Saponara, D. Kammler, E. M. Witte, O. Schliebusch, G. Ascheid, R. Leupers, H. Meyr

 March 2006 **Proceedings of the conference on Design, automation and test in Europe: Designers' forum DATE '06**

Publisher: European Design and Automation Association

 Full text available: [pdf\(381.87 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

This paper presents an Application Specific Instruction Set Processor (ASIP) design for the implementation of a class of nonlinear image processing algorithms, the Retinex-like filters. Starting from high level descriptions, first algorithmic optimization is accomplished. Then a processor architecture and an instruction set are customized with special respect to the algorithmic computations in order to achieve the specified timing at reasonable complexity. Taking advantage of the programmability ...

2 [Industry/government track paper: Email data cleaning](#)



Jie Tang, Hang Li, Yunbo Cao, Zhaohui Tang

 August 2005 **Proceeding of the eleventh ACM SIGKDD international conference on Knowledge discovery in data mining KDD '05**

Publisher: ACM Press

 Full text available: [pdf\(613.87 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Addressed in this paper is the issue of 'email data cleaning' for text mining. Many text mining applications need take emails as input. Email data is usually noisy and thus it is necessary to clean it before mining. Several products offer email cleaning features, however, the types of noises that can be eliminated are restricted. Despite the importance of the problem, email cleaning has received little attention in the research community. A thorough and systematic investigation on the issue is t ...

Keywords: data cleaning, email processing, statistical learning, text mining

3 [Visualization: GPU-based frequency domain volume rendering](#)



Ivan Viola, Armin Kanitsar, Meister Eduard Gröller

 April 2004 **Proceedings of the 20th spring conference on Computer graphics**

Publisher: ACM Press

 Full text available: [pdf\(1.80 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Frequency domain volume rendering (FVR) is a volume rendering technique with lower computational complexity as compared to other techniques. In this paper the FVR algorithm is accelerated by factor of 17 by mapping the rendering stage to the GPU. The

overall hardware-accelerated pipeline is discussed and the changes according to previous work are pointed out. The three-dimensional transformation into frequency domain is done in a pre-processing step. The rendering step is computed completely ...

Keywords: fourier transform, fourier volume rendering, hardware acceleration, hartley transform

4 Volume rendering on the MasPar MP-1



Guy Vézina, Peter A. Fletcher, Philip K. Robertson

December 1992 **Proceedings of the 1992 workshop on Volume visualization VVS '92**

Publisher: ACM Press

Full text available: pdf(725.62 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

5 I/O optimal isosurface extraction (extended abstract)

Yi-Jen Chiang, Cláudio T. Silva

October 1997 **Proceedings of the 8th conference on Visualization '97**

Publisher: IEEE Computer Society Press

Full text available: pdf(1.45 MB) [Publisher Site](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

6 Architectural and compiler support for effective instruction prefetching: a cooperative approach



February 2001 **ACM Transactions on Computer Systems (TOCS)**, Volume 19 Issue 1

Publisher: ACM Press

Full text available: pdf(432.96 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Instruction cache miss latency is becoming an increasingly important performance bottleneck, especially for commercial applications. Although instruction prefetching is an attractive technique for tolerating this latency, we find that existing prefetching schemes are insufficient for modern superscalar processors, since they fail to issue prefetches early enough (particularly for nonsequential accesses). To overcome these limitations, we propose a new instruction prefetching technique where ...

Keywords: compiler optimization, instruction prefetching

7 High performance interprocessor communication through optical wavelength division multiple access channels



Patrick W. Dowd

April 1991 **ACM SIGARCH Computer Architecture News , Proceedings of the 18th annual international symposium on Computer architecture ISCA '91**, Volume 19 Issue 3

Publisher: ACM Press

Full text available: pdf(968.65 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

8 Synthesis for low power: On multiple-voltage high-level synthesis using algorithmic transformations



Hsueh-Chih Yang, Lan-Rong Dung

January 2005 **Proceedings of the 2005 conference on Asia South Pacific design automation ASP-DAC '05**

Publisher: ACM Press


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 Xiao Min Zhang, Feng Jing, Z. Shui, XiaoFeng Wei, Wanguo Zheng, Qi-Xiang Zhu, D. Fan, and Hansheng Peng
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 Stanislav A. Sukharev
 Proc. SPIE **3492**, 12 (1999) **Full Text:** [PDF (2598 kB)] (13 pages)


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Mao, M.; Gan, Z.J.;
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Norman, M.J.; Andrew, J.B.; Bett, T.H.; Clifford, R.K.; Donley, M.D.; England, J.E.; Hopps, N.W.; McInnes, H.A.; Nolan, J.R.; Parker, K.W.; Porter, K.; Roberts, S.D.; Stevenson, R.M.;
[Lasers and Electro-Optics Europe, 2000. Conference Digest, 2000 Conference on 10-15 Sept 2000](#) Page(s):1 pp.
Digital Object Identifier 10.1109/CLEOE.2000.909859
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Yanovsky, V.P.; Richardson, M.C.; Miesak, E.J.;
[Quantum Electronics, IEEE Journal of](#)
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Vendik, I.B.; Gashinova, M.S.; Goubina, M.N.; Kolmakov, Y.A.; Kolmakov, I.A.; Zhang, G.Y.;
[Applied Superconductivity, IEEE Transactions on](#)
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Digital Object Identifier 10.1109/TASC.2003.813710
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Teh, C.-H.; Chin, R.T.;
[Pattern Analysis and Machine Intelligence, IEEE Transactions on](#)
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- ☐ 6. **A program for the design of linear phase finite impulse response digital filters**
Parks, T.; McClellan, J.;
[Audio and Electroacoustics, IEEE Transactions on](#)
Volume 20, Issue 3, Aug 1972 Page(s):195 - 199
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Tufts, D.; Rorabacher, D.; Mosier, W.;
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Hazra, S.;
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Kates, J.M.;
[Speech and Audio Processing, IEEE Transactions on](#)
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- ☐ 11. **Development of a crosstalk measurement type three-dimensional digital color decoder**
Ito, S.-E.; Lowlor, R.; Ebihara, N.;
[Consumer Electronics, IEEE Transactions on](#)
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Digital Object Identifier 10.1109/30.214809
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Bangham, J.A.;
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- ☐ 13. **Efficient narrowband FIR and IFIR filters based on powers-of-two sigma-delta coefficient truncation**
Powell, S.R.; Chau, P.M.;
[Circuits and Systems II: Analog and Digital Signal Processing, IEEE Transactions on \[see also Circuits and Systems II: Express Briefs, IEEE Transactions on\]](#)
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Leduc, J.-P.; Odobez, J.-M.; Labit, C.;
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Digital Object Identifier 10.1109/83.585236
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- ☐ 15. **Image filtering using hyperstable adaptive algorithms**
Tan, A.C.; Sheng-Tsai Chen; Basu, S.;
[Circuits and Systems II: Analog and Digital Signal Processing, IEEE Transactions on \[see also Circuits and Systems II: Express Briefs, IEEE Transactions on\]](#)
Volume 44, Issue 5, May 1997 Page(s):358 - 370
Digital Object Identifier 10.1109/82.580841
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Liu, K.; Wang, W.K.;
[Photonics Technology Letters, IEEE](#)
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Seydnejad, S.R.; Kitney, R.I.;
[Biomedical Engineering, IEEE Transactions on](#)
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Chowdhury, E.A.; Ongadi, G.; Walker, B.C.; Tamosaitis, R.S.; Leleko, V.;
[Lasers and Electro-Optics, 2003. CLEO '03. Conference on](#)
1-6 June 2003 Page(s):2 pp.
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- ☐ 20. **Digital image filtration on cellular neural network**
Khryashyov, V.V.; Priorov, A.L.; Sautov, E.Yu.; Sokolenko, E.A.;
[Artificial Intelligence Systems, 2002. \(ICAIS 2002\). 2002 IEEE International Conference on](#)
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Shang, Z.Q.; Sewell, J.I.;

Digital and Analogue Filters and Filtering Systems, IEE Colloquium on
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Bangham, J.A.; Pye, C.J.; Impey, S.J.; Aldridge, R.V.;

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10 Jun 1993 Page(s):5/1 - 5/3

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| S10 | 55 | (edge near5 detect\$3) with (direction with strength) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/27 14:40 |
| S11 | 7 | S10 same segment\$5 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/27 14:43 |
| S12 | 3635 | (edge with direction with (strength magnitude)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/27 14:42 |
| S13 | 6 | S12 same segmentation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/27 14:43 |
| S14 | 2 | EP-712094-\$.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/27 16:12 |
| S15 | 16 | PDL with "image pixel" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:19 |
| S16 | 21 | (MRC "mixed raster") same (segment\$5 with "text" with "image") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 13:05 |
| S17 | 44 | (MRC "mixed raster") and (segment\$5 with "text" with "image") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:08 |
| S18 | 19 | ((("5583659") or ("6400844") or ("6324305") or ("4849914") or ("5515452") or ("5745596") or ("5900953") or ("6058214") or ("6343154") or ("6633670"))).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/10/30 14:32 |
| S19 | 21 | (MRC "mixed raster") and (segmentation with edge) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:09 |

EAST Search History

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| S20 | 8 | (MRC "mixed raster") and ((selector mask) near5 plane) same (edge with segment\$5) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:16 |
| S21 | 41 | (MRC "mixed raster") and ((selector mask) near5 plane) same segmentation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:17 |
| S22 | 83 | (MRC "mixed raster") same segmentation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:17 |
| S23 | 64 | (MRC "mixed raster") with segmentation | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:17 |
| S24 | 1617 | ("3x3" "3 x 3" "3 by 3") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:40 |
| S25 | 2014 | ((segment\$5 separat\$3) with foreground with background) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 11:08 |
| S26 | 6 | S24 and S25 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 14:41 |
| S27 | 94 | S25 same (window neighborhood) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 15:23 |
| S28 | 33 | S25 with (window neighborhood) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 15:10 |
| S29 | 3 | ("6701009").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/10/30 15:11 |

EAST Search History

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| S30 | 85 | S25 with edge | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 15:23 |
| S31 | 15 | S25 with (edge near5 detect\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/30 15:23 |
| S32 | 42 | gradient with white with background | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 09:46 |
| S33 | 194 | ((determin\$5 designat\$3 assign\$3) with (text graphic foreground) with background) same (window bblock neighborhood) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 11:14 |
| S34 | 7 | ((determin\$5 designat\$3 assign\$3) with (text graphic foreground) with background) with (neighborhood) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 11:10 |
| S35 | 27 | ((determin\$5 designat\$3 assign\$3) with (text graphic foreground) with background) same (neighborhood) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 11:14 |
| S36 | 10 | PDL with (pixel near5 (type class category tag)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:22 |
| S37 | 247 | PDL with (text with image) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:22 |
| S38 | 0 | (PDL with tag with text with image) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:22 |
| S39 | 0 | S37 with tag | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:23 |

EAST Search History

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| S40 | 3 | S37 same tag | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:23 |
| S41 | 30 | S37 with (tag type kind categor\$4 type class) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:59 |
| S42 | 35 | S37 with raster | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 12:56 |
| S43 | 39 | (PDL with conver\$4 with raster\$7) same (text with image with tag type kind categor\$4 type class) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 13:00 |
| S44 | 9 | "10/612,250" and curry.in. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/10/31 16:25 |
| S45 | 1 | (replac\$3 substitut\$3 chang\$3) with ("by" "with") with ((filter\$3 transform\$5 correct\$3 adjust\$3) near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 14:22 |
| S46 | 85202 | (replac\$3 substitut\$3 chang\$3) with ((filter\$3 transform\$5 correct\$3 adjust\$3) near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 14:23 |
| S47 | 18142 | (replac\$3 substitut\$3 chang\$3) with (filter\$3 near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 14:23 |
| S48 | 1267 | (replac\$3 substitut\$3 chang\$3) with (select\$2 specific designated chosen) with (filter\$3 near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 14:24 |
| S49 | 460 | ((replac\$3 substitut\$3 chang\$3) near5 (select\$2 specific designated chosen)) with (filter\$3 near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 14:25 |

EAST Search History

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| S50 | 44 | ((replac\$3 substitut\$3) near3 (select\$2 specific designated chosen)) with (filter\$3 near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:30 |
| S51 | 40 | ((replac\$3 substitut\$3) near3 (noise)) with (filter\$3 near3 (value result data signal)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 14:35 |
| S52 | 367 | (partition\$3 near5 (mask select\$3)) same (filter\$3 smooth\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:32 |
| S53 | 217 | (partition\$3 near5 (mask select\$3)) with (filter\$3 smooth\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:32 |
| S54 | 206 | (partition\$3 near5 (mask select\$3)) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:32 |
| S55 | 31 | (partition\$3 near5 (mask)) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:34 |
| S56 | 6 | (partition\$3 near5 selector) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:35 |
| S57 | 0 | (partition\$3 near5 (edge adj1 (map image))) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 10:48 |
| S58 | 6 | ((divid\$3 partition\$3) near5 (edge adj1 (map image))) with (filter\$3 smooth\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/01 15:36 |
| S59 | 1308 | ((gradient edge) adj1 (map image)) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 10:48 |

EAST Search History

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| S60 | 191 | ((gradient) adj1 (map image)) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 11:01 |
| S61 | 17 | ((gradient) adj1 (map)) with (filter\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 10:49 |
| S62 | 33 | ((gradient) adj1 (image)) with (filtered) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 12:34 |
| S63 | 32 | ((gradient) adj1 (image map)) with (partition\$3 divid\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 14:17 |
| S64 | 3 | ((gradient) adj1 (image map)) with (partition\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 12:34 |
| S65 | 2323 | (direction\$2 near3 (image map)) with (partition\$3 divid\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 14:14 |
| S66 | 17 | (direction adj1 map) with (partition\$3 divid\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 14:14 |
| S67 | 10 | (gradient with (edge adj1 (image map))) with (partition\$3 divid\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 14:18 |
| S68 | 51 | ((direction orientation gradient) with (edge adj1 (image map))) with (partition\$3 divid\$3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 14:43 |
| S69 | 2159 | image with ((bias\$3 subtract\$3 offset\$3 normaliz\$3) near5 (mean average constant)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 15:20 |

EAST Search History

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| S70 | 905 | image with (bias\$3 near5 (mean average constant)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 15:21 |
| S71 | 66 | image with (bias\$3 adj3(mean average)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:14 |
| S72 | 17 | (difference adj1 image) with partition\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 15:22 |
| S73 | 7 | ((gradient edge) adj1 image) with (subtract\$3 adj3(mean average constant)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 17:09 |
| S74 | 8 | ((gradient edge) adj1 image) with (subtract\$3 near5 (mean average constant)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:20 |
| S75 | 10 | ((gradient edge) adj1 (image map)) with ((bias\$3 subtract\$3) near5 (mean average constant offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:24 |
| S76 | 21 | (gray\$1scale gray\$1level) with ((bias\$3 subtract\$3) near5 (mean average constant offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:24 |
| S77 | 124 | ((gradient edge) near3 (image map)) same ((bias\$3 subtract\$3) near5 (mean average constant offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 17:10 |
| S78 | 27 | ((gradient edge) near3 (image map)) with ((bias\$3 subtract\$3) near5 (mean average constant offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:25 |
| S79 | 6534 | (MRC "mixed raster") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:45 |

EAST Search History

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| S80 | 117 | (MRC "mixed raster") same compression | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 16:49 |
| S83 | 2082 | ((gradient edge)) same ((bias\$3 subtract\$3) near5 (mean average constant offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 17:10 |
| S84 | 153 | ((gradient)) with ((bias\$3 subtract\$3) near5 (mean average constant offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 17:11 |
| S85 | 57 | ((gradient)) with ((subtract\$3) near5 (mean average bias offset)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/02 17:11 |
| S86 | 1792 | ((signal value gradient mask) near5 ("1" "-1")) with weak | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 10:51 |
| S87 | 20 | S86 and (MRC "mixed raster") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 10:47 |
| S88 | 20709 | (filter\$3 LPF HPF smooth\$3 sharpen\$3) with (4-pass four\$1pass ("4" four) near5 (pass\$2 iterat\$3))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 10:56 |
| S89 | 1697 | (filter\$3 LPF HPF smooth\$3 sharpen\$3) with (4-pass four\$1pass ("4" four) adj1 (pass\$2 iterat\$3))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 10:56 |
| S90 | 203 | S88 and JPEG | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 10:58 |
| S91 | 8 | S88 same JPEG | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 10:57 |

EAST Search History

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| S92 | 5765 | 382/164,173,176,180;358/1.1,1.18. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 12:21 |
| S93 | 51 | S92 and (MRC "mixed raster") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/11/03 12:22 |